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AMP INCORPORATED / *Pamcor, Inc.*

1966 Annual Report - Twenty Fifth Anniversary

1966

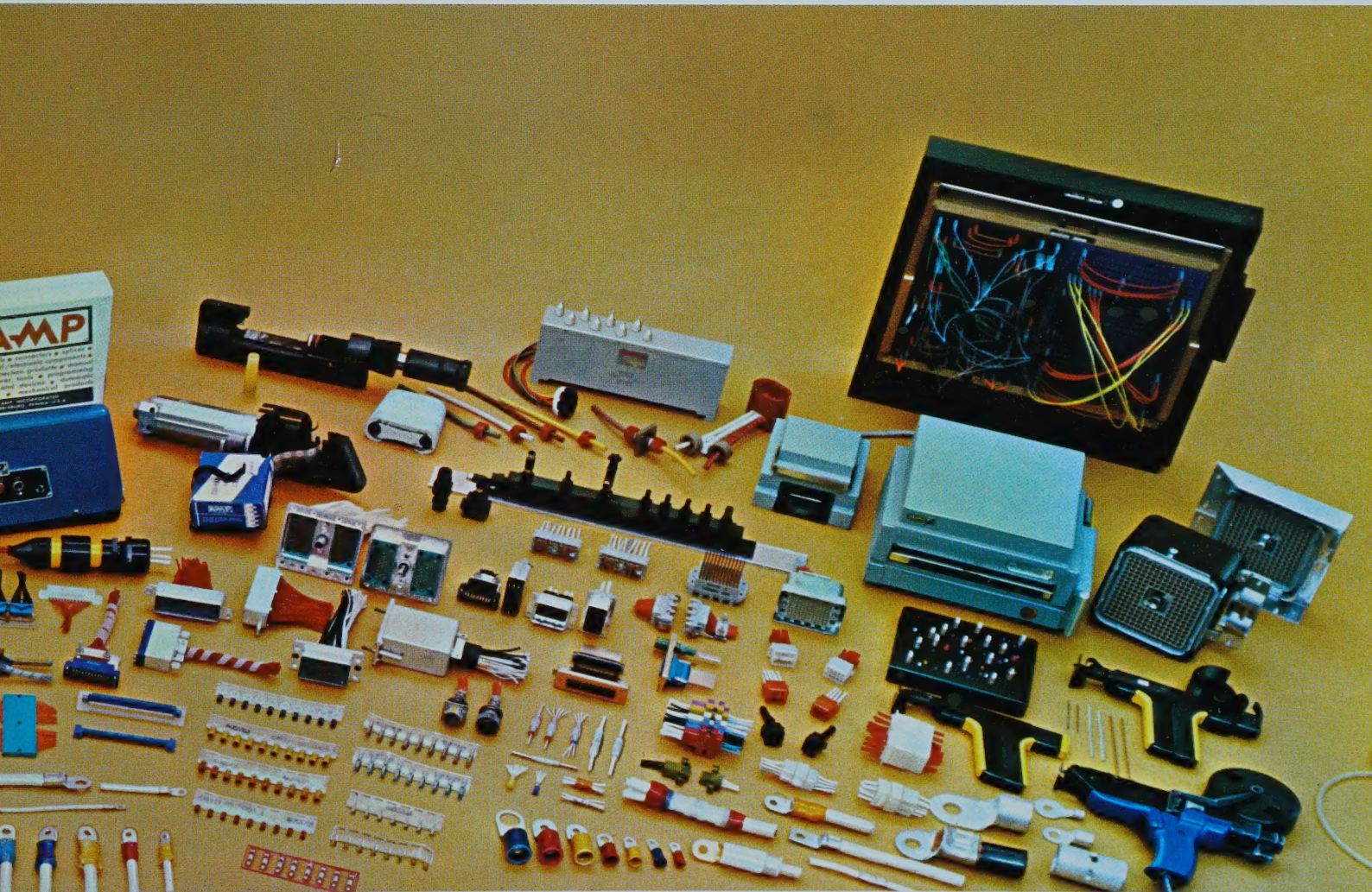
1901

1901



It all started twenty-five years ago with a relatively simple uninsulated electrical terminal—offered primarily to the U. S. aircraft and marine markets. Next came pre-insulated terminals and splices and semi-automated application machines. Today, an extremely broad range of AMP terminals, splices, connectors and application tooling of all types are provided to widely diversified markets around the world. Emphasis on new products has also created product lines of programming systems, "power packages" and other electrical-electronic devices.

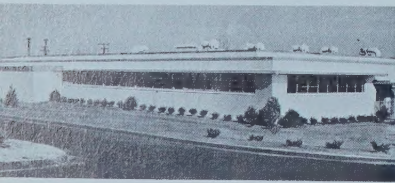
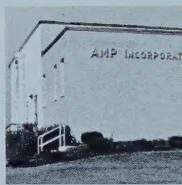
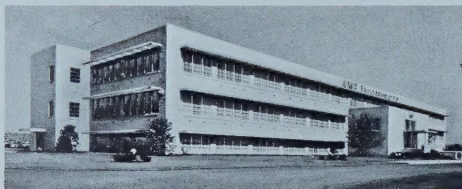
The picture below (continued on the last page) shows a few of the over 25,000 AMP product items.





AMP's first headquarters was in this building in Elizabeth, New Jersey. Its first manufacturing facility occupied a portion of one floor in a nearby building. In 1943, the Company established its first manufacturing plant in Pennsylvania and moved its headquarters to North Fourth Street in Harrisburg. Since then, AMP has added dozens of modern, well-maintained buildings in the U. S., Puerto Rico and ten other countries to become a large, truly international Company.

Present Headquarters:
Eisenhower Boulevard, Harrisburg, Pa.



Company Profile

PRODUCTS



Terminals



Coaxial Connections



Interconnection Systems



Connectors



Tooling



Programming Systems



Power "Packages"

LOCATION—AMP's General Offices are at Harrisburg, Pennsylvania, with the major portion of its research, engineering and manufacturing facilities within a fifty-mile radius.

COMPANIES—The combined financial statements and, unless otherwise noted, any statistics in the text, cover AMP Incorporated, its Puerto Rican manufacturing affiliate—Pamcor, Inc., and AMP's subsidiaries, all of which are wholly-owned. AMP now has three subsidiaries in the United States, Canada and Mexico; six European manufacturing and sales subsidiaries in France, Great Britain, Holland, Italy, West Germany and Spain; and two other foreign manufacturing and sales subsidiaries in Japan and Australia.

MARKETS—Throughout the world, AMP products are marketed directly to thousands of customers for use in the manufacture, maintenance and repair of the products and equipment of almost all industries including aerospace, appliance and other consumer goods, power equipment, transportation, power utility and the vast fields of commercial and military electronics including communications, controls and computers.

PRODUCTS—AMP is a leading producer of solderless terminals, splices, multiple connectors and other wiring devices, and the application tooling to pressure-crimp these devices to electric wires. It also produces patchcord, pinboard and card programming systems, capacitor products, and other electronic components. Over 25,000 variations in type and size of these products are manufactured and sold to AMP customers. Pamcor manufactures terminals and splices under royalty arrangements with AMP.

MARKETS



Aerospace & Military Electronics



Commercial Electronics



Computer & Data Processing



Consumer Goods



Electrical & Transportation



Maintenance, Modernization
& Construction

FOR THE YEAR

	1966	1965
Net sales	\$141,816,891	\$110,942,291
Income before income taxes	\$ 27,464,571	\$ 22,515,848
Net income	\$ 15,025,571	\$ 12,447,848
Per share	\$2.47	\$2.05
Cash dividends	\$ 3,651,630	\$ 3,037,038
Per share	60¢	50¢
Earnings reinvested in		
the business	\$ 11,373,941	\$ 9,410,810
Capital expenditures	\$ 17,135,921	\$ 11,816,616
Depreciation	\$ 5,608,960	\$ 4,177,602

AT DECEMBER 31

Backlog of unfilled orders	\$ 30,400,000	\$ 22,900,000
Working capital	\$ 35,256,944	\$ 28,645,392
Shareholders' equity	\$ 64,283,137	\$ 53,025,583
Shares of stock outstanding	6,086,156	6,074,702
Number of shareholders	6,465	6,233
Number of employees	8,735	7,100

NOTICE:

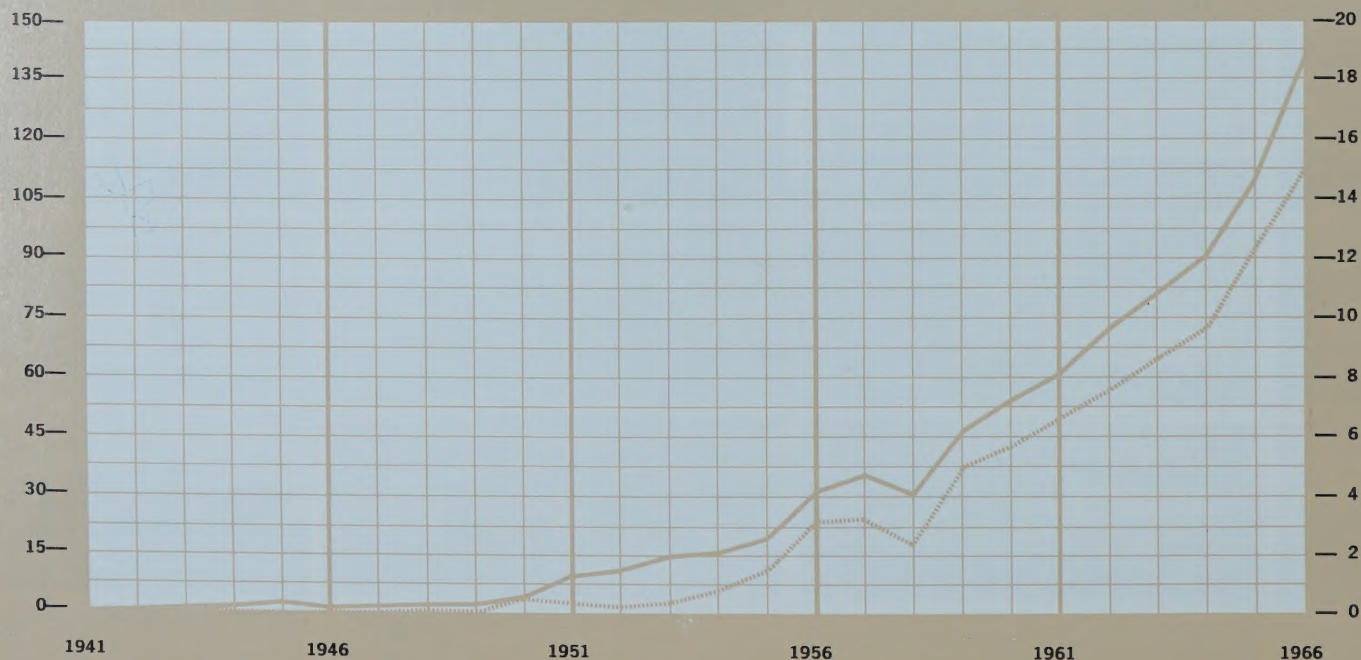
As previously reported, Mr. S. S. Auchincloss, President since 1965, was designated Chief Executive Officer at the January 1967 Board Meeting on the recommendation of Mr. U. A. Whitaker, who previously served in that capacity.

Mr. Whitaker will continue as Chairman of the Board and as Chairman of the newly created Executive Committee of AMP's Board of Directors. The Board has delegated limited authority to this Committee to act for the Board between its regularly scheduled formal meetings. In addition to Mr. Whitaker, the Executive Committee will consist of G. A. Ingalls, Vice Chairman of the Board; S. S. Auchincloss, President and Chief Executive Officer; and C. J. Fredricksen, Vice President-Treasurer.

Highlights

SALES

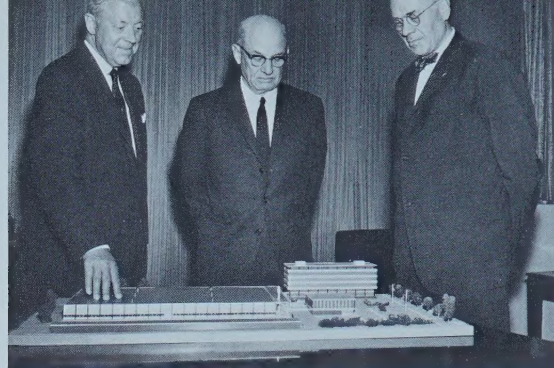
\$ MILLIONS



NET INCOME

\$ MILLIONS

To the Shareholders



G. A. Ingalls, left; U. A. Whitaker, center; and S. S. Auchincloss, right; examining a model of AMP-Holland's existing and planned facilities.

A 28% sales increase and a 21% gain in earnings in one year is, in itself, quite gratifying, particularly since it followed a year of similar high growth. Taking the past two years together, AMP has increased both sales and net income approximately 55% each over the previous record highs of 1964. Similarly, our year-end backlog of unfilled orders of \$30.4 million rose over 30% from \$22.9 million a year earlier, and about 60% above the \$18.9 million at year-end 1964. This rise was spread over many markets and products, including a number of newer products.

Once again sales in each of our major market classifications increased, with the greatest percentage gains coming in sales to the computer and data processing companies, the consumer goods manufacturers and the electrical equipment industries. In 1966 the rise in our domestic sales was excellent and approached AMP's usually faster rate of growth outside the U. S., where we now have ten international subsidiaries directly serving the majority of its customers in relatively newer markets. AMP's many geographically diversified markets in many different economies provide a growing source of stability, as well as a great competitive advantage in serving customers who have similar component requirements around the world.

Our capital expenditures during 1966 reached a record high of \$17.1 million, compared to \$11.8 million in 1965. Production and engineering facilities were expanded in Central Pennsylvania, North Carolina and overseas, and application tools and machines leased to customers also increased substantially. 1967 capital expenditures are expected to exceed 1966's total and, once again, will increase both our operating facilities and the application tooling leased to customers. Expenditures for both years are discussed further under *Operations*.

AMP's domestic growth rate in the past two years reached levels that, for the first time in quite a few years, could not be totally financed with internally generated funds. Early in 1966 we acquired a part (\$6,000,000) of our 1966 financing needs on a term basis, and expect no difficulty in obtaining additional funds as needed. We have already obtained a commitment for an additional ten million dollars of long-term financing. Because of the currently high interest rates, we again chose to obtain a relatively short five to ten year maturity.

It seemed particularly appropriate that, in its 25th anniversary year, AMP was first recognized as one of the nation's 500 largest industrial companies. (Fortune Maga-

zine listed AMP as the 495th largest in sales and 274th in net income for the year 1965.) Growing to our present size in 25 years without acquisitions or mergers was no doubt due to many factors. As our front cover suggests, it was attributable in great part to the many new products resulting from AMP's continued emphasis on research, development and engineering. Without hesitation, therefore, we reaffirm our intention to continue AMP as an engineering-oriented company placing heavy emphasis on expanding our existing product lines, broadening into new lines and widening our markets. Our more recent undertakings include not only new forms of terminals but more complex connectors and interconnection systems, non-electrical connectors and assemblies, a number of new and improved application machines and tools, and a widening family of card readers.

These and other recently released product lines now under market development make us quite confident when assessing the longer term future. We expect to increase our penetration in present markets, most of which have above-average growth rates, and obtain significant positions in new market areas such as power utilities, telephone companies, and industries using pneumatic tubing. Further, we feel AMP has the people, facilities, and customer recognition to take full advantage of the opportunities ahead.

The year ahead seems more difficult to assess than usual because of the widespread uncertainty over the general domestic economy. It would be unduly optimistic to relate our future progress to the unusually high rate of increase during the past two years; however, barring a material economic downturn, we are looking forward to further gains in 1967.

In this, our twenty-fifth anniversary year, we give special recognition to the many employees, customers and suppliers whose efforts contributed so much to our past performance and weigh so heavily in appraising our future.

Sincerely,

S. S. AUCHINCLOSS
President

U. A. WHITAKER
Chairman of the Board

March 13, 1967

1966 in Review

Financial

AMP'S FINANCIAL POSITION, sustained by record high profits, remained strong during 1966, even though our rapid growth rate (28% in sales) required record capital expenditures to keep pace with our operating requirements. This growth rate, along with rising costs and other uncertainties in the material and labor markets, made it necessary to add substantially to our inventories. The rapid increase in sales also contributed to a sizeable increase in our accounts receivable which, in addition, reflects an abnormally tight money supply here in the United States.

Shareholders' Equity rose 21% during the year 1966 to \$64.3 million—an \$11.3 million increase generated entirely through the reinvestment of earnings.

Working Capital during 1966 rose 23% to \$35.3 million at year end and reflects a 2.2 to 1 ratio of current assets to current liabilities. While this ratio is down slightly from last year's 2.6 to 1, it continues to reflect a strong current financial position with only a modest amount of long-term debt outstanding.

Long-Term Debt, despite an increase of \$5.8 million during 1966, totaled only \$6.2 million at year end and, along with current bank debt represents a rather low total debt to equity ratio. Additional funded debt is needed to reduce current bank debt and to finance the increases in working capital and fixed assets expected during 1967. We have, therefore, negotiated for an additional medium-term loan of \$10 million due serially over ten years, or, at the Company's option, over five years. While further debt financing may be required if our recent rate of growth continues, no equity financing is contemplated.

CAPITAL EXPENDITURES in 1966 were higher in all major categories and reached a record high of \$17.1 million—considerably greater than 1965 expenditures, which totaled \$11.8 million. Expenditures planned for 1967 are expected to exceed 1966's total, both of which are discussed in further detail under *Operations*.

U. S. INCOME TAXES—Neither the Investment Tax Credit nor its recent suspension through 1967 have a significant effect on AMP's net income in any one

year because the credits are apportioned over the life of the equipment for which they were granted.

The changes in certain accelerated depreciation methods for tax purposes will not affect net income, which will continue to reflect the straight-line method of depreciation, but will eliminate the opportunity to defer the payment of a portion of our 1967 income taxes.

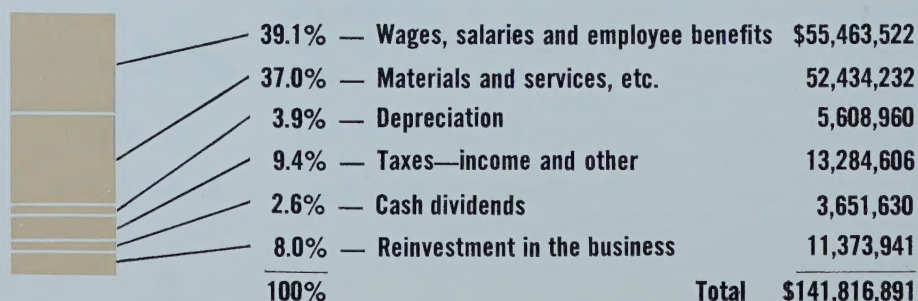
THE SOURCE AND APPLICATION OF FUNDS summary of our financial activity for 1966 and 1965 is as follows:

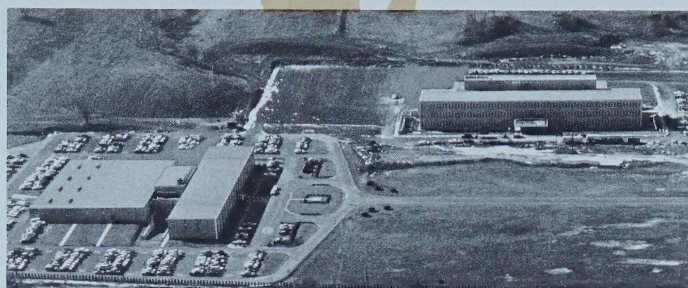
	1966	1965
	(Dollars in Thousands)	
FUNDS WERE PROVIDED FROM—		
Net income	\$15,025	\$12,448
Expenses not requiring current cash outlays:		
Depreciation	5,609	4,178
Deferred income taxes	322	405
Others	583	(4)
Increase in Long-Term Debt ..	5,800	(100)
Miscellaneous sources, net	61	59
	<u>\$27,400</u>	<u>\$16,986</u>
AND WERE USED TO—		
Increase working capital	\$ 6,612	\$ 2,132
Acquire plant and equipment ..	17,136	11,817
Pay dividends to shareholders ..	3,652	3,037
	<u>\$27,400</u>	<u>\$16,986</u>

DIVIDENDS—The quarterly combined cash dividend of 18¢ per AMP Endorsed Share paid on March 1, 1967, (consisting of 12¢ from AMP and 6¢ from Pamcor) indicates an annual rate of 72¢ per share compared to 60¢ per share paid during 1966. This is the ninth consecutive annual increase of more than 10% and the fourteenth consecutive annual increase.

THE TWO-FOR-ONE STOCK SPLIT proposed by the AMP Board of Directors at their January meeting will be submitted for shareholder action at the April 27, 1967, annual meeting. If approved, one additional share for each share held will be automatically distributed early in June 1967 to shareholders of record May 5, 1967. The Company believes that the stock split will widen the distribution and improve the marketability of the AMP Endorsed Shares. The Pamcor Common Stock, the bulk of which is held in trust for the AMP shareholders, will not be affected. Each holder of AMP Endorsed Shares will continue to have the same proportionate interest in both companies.

How the 1966 Sales Dollars were used





New 155,000 sq. ft. engineering building (right) nearing completion in Harrisburg.

Operations

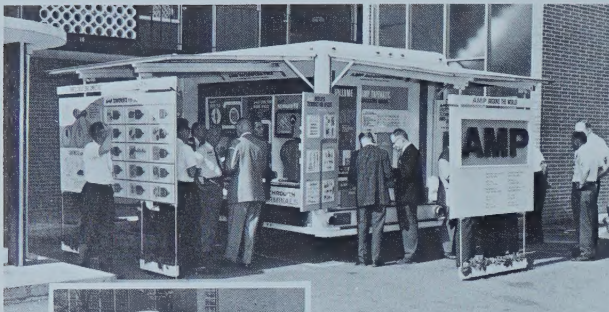
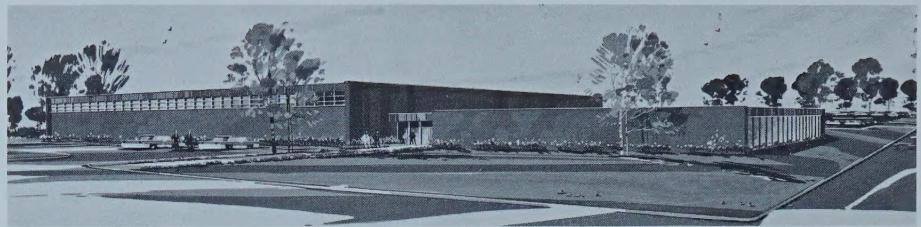
AMP's operating capabilities were strengthened significantly during 1966. The number of employees rose from 7,100 to over 8,700, more land was acquired, building facilities were expanded and modernized, and the amount of equipment increased markedly. The largest item in 1966 was another major engineering building, located adjacent to the engineering building completed in 1963. When completed this spring, this modern, three story, 155,000 sq. ft. facility will house certain engineering, model shop, and administrative functions and will be the largest of AMP's buildings. A number of plant additions and improvements were made in both Central Pennsylvania and in North Carolina, and more land was acquired in these two areas as well as overseas. Additions were begun on our plants in France and Japan and construction was started on a combined district sales office and warehouse facility in Chicago. While the expansion in land was significant and the addition of 300,000 sq. ft. of floor space substantial, the greatest proportion of expenditures was for production machinery and equipment, as well as sizeable increases in the number of AMP-owned application machines and tools leased to customers.

Capital expenditures planned for 1967 should further broaden AMP's capabilities. Expansion will continue in both Central Pennsylvania and North Carolina.

Overseas projects will include new buildings in Great Britain and Holland and the completion of additions to present facilities in France and Japan.

A "thumbnail sketch" of AMP's capabilities today shows nearly 9,000 people utilizing over 2,000,000 sq. ft. of floor area. This space includes major manufacturing, engineering and administrative facilities in Pennsylvania; additional plants in North Carolina and Florida; Pamcor's plant in Puerto Rico; a number of district sales offices and warehouses in the United States; and ten wholly-owned subsidiaries in as many foreign countries. These subsidiaries carry on a wide range of AMP activities and are strategically located in Canada, Mexico, Europe, and the Far East to give AMP direct coverage of most of the major industrial countries in the free world.

In facilities for research, development, prototype fabrication, and environmental testing, AMP's capabilities in its chosen product fields are outstanding. AMP's abilities in manufacturing center about its leadership in such fields as high-speed die-forming of metals, metal plating, plastic molding, and automated assembly of small parts. Its production facilities are strategically dispersed to draw on good labor pools and to offer customers a dual source of supply for many of AMP's proprietary products.



Top—New building in Chicago to house district offices and a regional warehouse. **At left**—An AMP MOBILAB presents a comprehensive display of AMP products to key personnel from appliance manufacturing plants of Dominion, Tappan and Westinghouse Electric companies. **At right**—An annual two-day seminar on the use of AMP products and tools brings airlines up-to-date on the latest electrical connection methods.

Marketing

AMP's marketing approach is an indispensable part of its ability to grow. Since its early years, the Company has pursued marketing principles designed to gain broadness or diversity of markets while achieving deep penetration of individual markets.

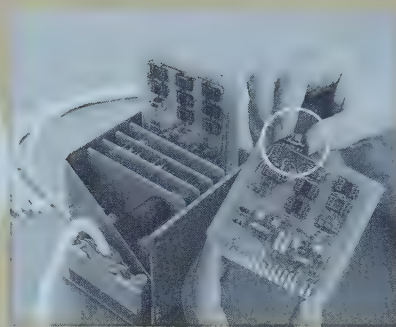
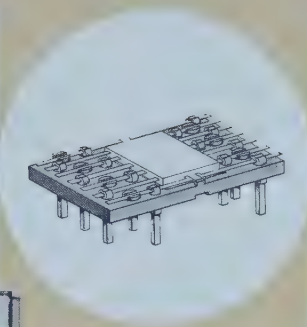
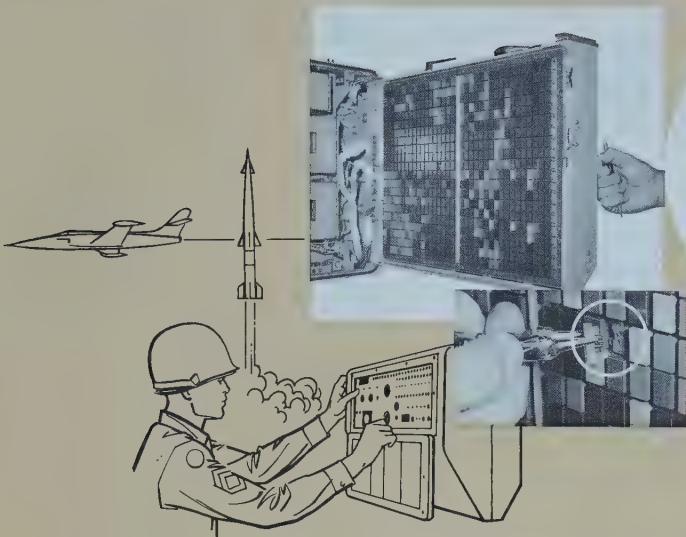
In supplying high quality proprietary products and tooling, AMP marketing has always placed strong emphasis on broad and thorough service before, during, and after the sale. In addition, marketing is considered an integral, valuable part of the process of adding new products. Thus, in an industry sector in which distributor arrangements are prevalent, AMP considers direct selling essential, both to give customers the best possible service and to provide the continuous close liaison needed for the development of new products. In the United States over 7,000 original equipment makers of all types are served by a field sales force of over 100 highly trained sales engineers and product specialists, operating out of ten district sales offices. They are reinforced by resident field service engineers who maintain AMP application equipment and train customer personnel.

A separate 200 man sales force at AMP's subsidiary, American Pamcor, Inc., operates out of 16 additional district offices in the United States. They specialize in

selling AMP products for such uses as plant modernization, equipment repair, and construction; and to maintain and expand transportation, electric utility and telephone company facilities. Similarly, in other countries two separate direct sales forces of a subsidiary cover these two different markets. In the less industrialized areas of the world, we find it advantageous to sell through distributors.

To supplement the selling organization, all the tools of modern marketing are employed; advertising, product publicity, brochures, direct mail campaigns, movies, trade show exhibits, truck-mounted AMP MOBILAB exhibits, papers presented at conferences, customer seminars, the "AMP Institute" school for training AMP and customer personnel, a fleet of Company planes—all an integral part of the AMP marketing approach.

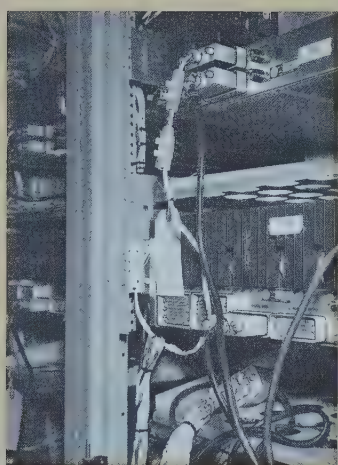
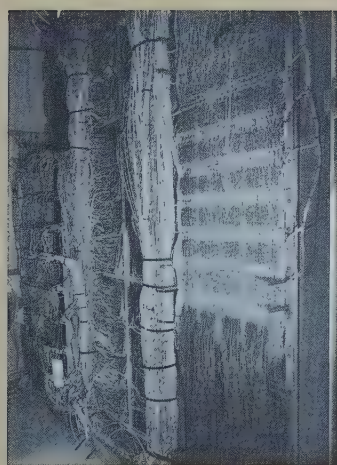
Since many new AMP product families arise initially out of specific customer situations, marketing plays a key role at every stage—from discussions of a customer's needs, through design and prototype exposure, to final application of the finished product. With this continuous, broad customer contact, a problem-solving, market-conscious atmosphere pervades the entire Company and produces good short-term results while building for the future.



THE AEROSPACE AND MILITARY ELECTRONICS FIELDS require a high de-

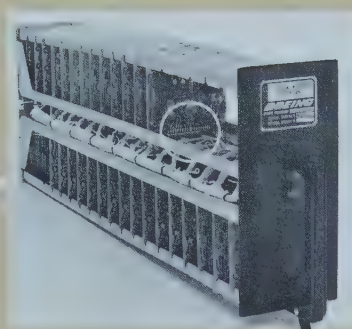
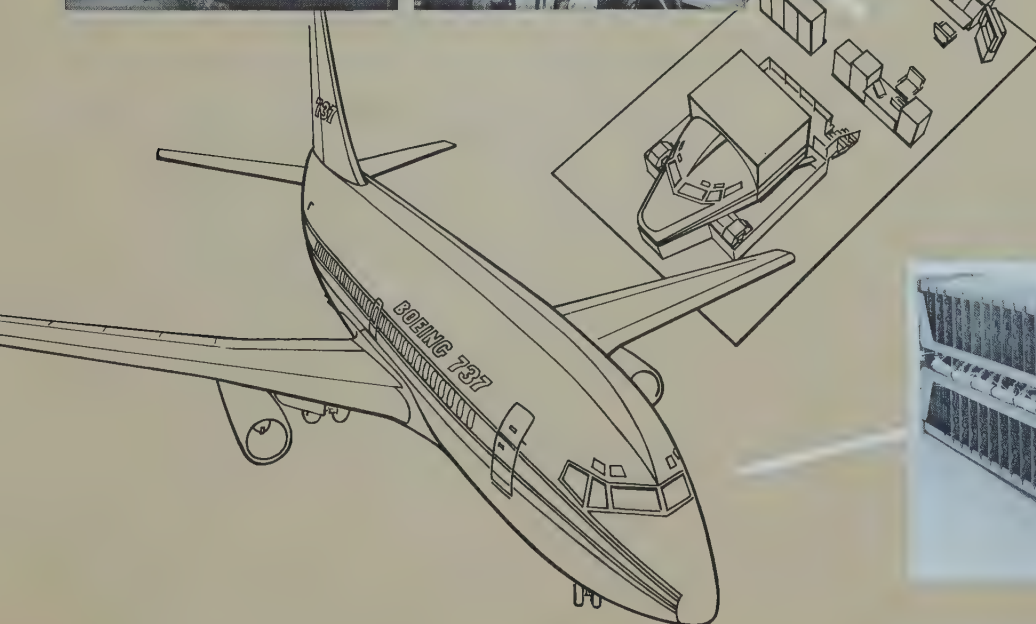
gree of miniaturization and reliability of electrical connections—a need met by many AMP products.

Above—For packaging fragile integrated circuit “flat packs”, Martin Marietta Corp. (left) uses AMP-CRIMPAC headers that plug into mating units interconnected with AMP TERMI-POINT wiring devices. The Ryan Aeronautical Co. (right) mounts AMP-CRIMPAC headers onto its circuit cards by plugging into AMP miniature sockets.



Middle—Conductron Corp., a subsidiary of the McDonnell Co., uses many AMP products in their flight simulators. Panels are wired with TERMI-POINT wiring devices (left) and series “M” connectors (right).

Bottom—Over 100 AMP-TAB printed circuit edge connectors are scheduled for use in various electronic modules in the Boeing 737 plane—one of a number of AMP products used by the Boeing Company.





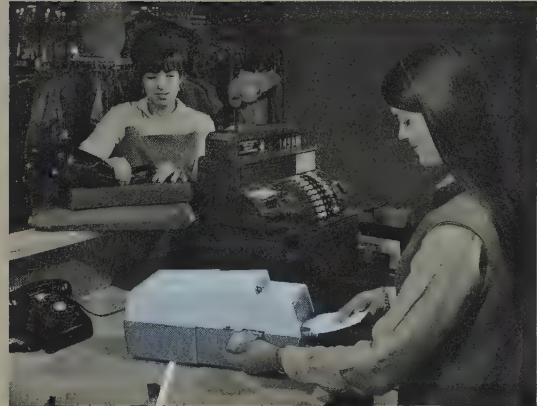
COMMERCIAL AND INDUSTRIAL ELECTRONIC FIELDS

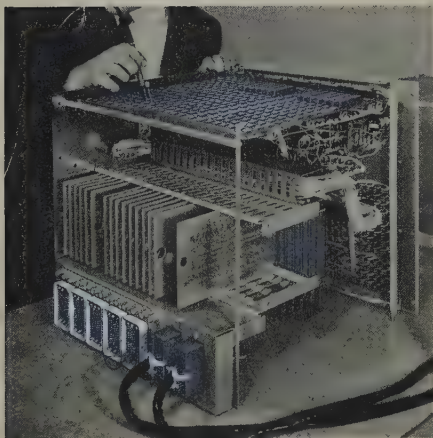
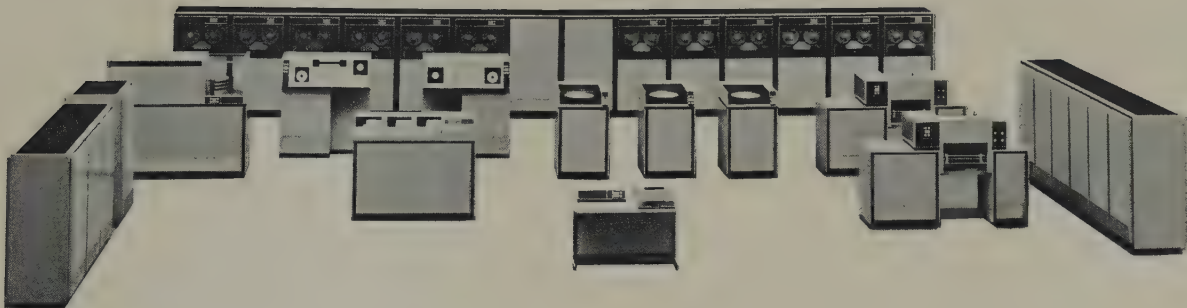
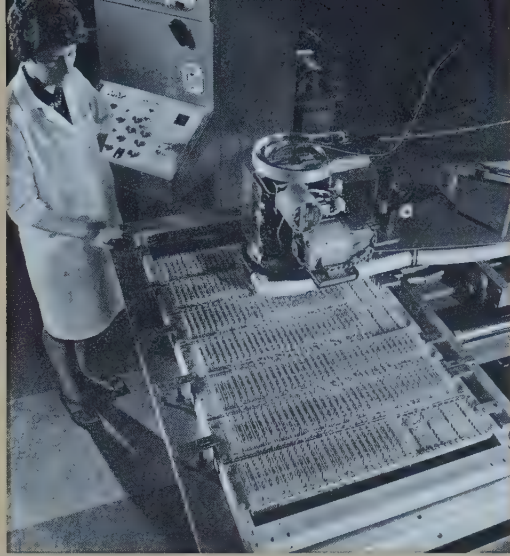
are making increasing use of AMP terminals and splices, multiple connectors, interconnection systems, and programming systems. Shown here are a few of the varied uses of just one of these product families—AMP card and badge readers for input of information into electronic equipment.

At right—AMP's reader-imprinter for credit cards and sales slips is used in Ultronic Systems Corporation's VALIDATOR system for retail credit control.

Bottom left—An AMP tabulating card reader is the input device in batch weighing control systems made by Emerson Electric Company.

Bottom right—An AMP badge reader is a vital part of the Control Data Corp. TRANSACTER 0101 Badge Reader used in data collection systems.





COMPUTER AND DATA PROCESSING—a fast-growing field in which AMP products are used by virtually every U. S. manufacturer, and by the major producers overseas.

Above—English Electric—Leo—Marconi Computers Ltd. uses a number of AMP products in their new System 4 computer equipment shown here. AMP TERMI-TWIST connectors and several AMP TERMI-POINT numerically-controlled wiring machines are used to make the thousands of back panel interconnections.

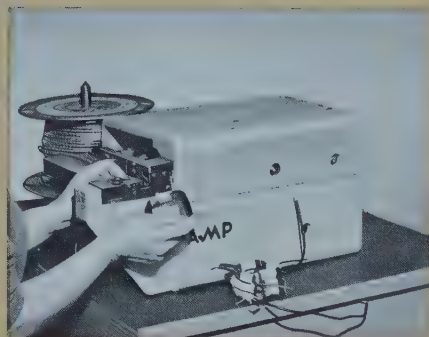
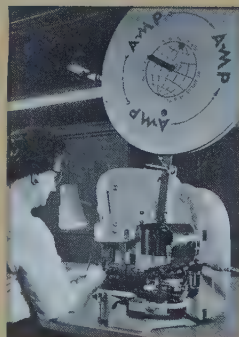
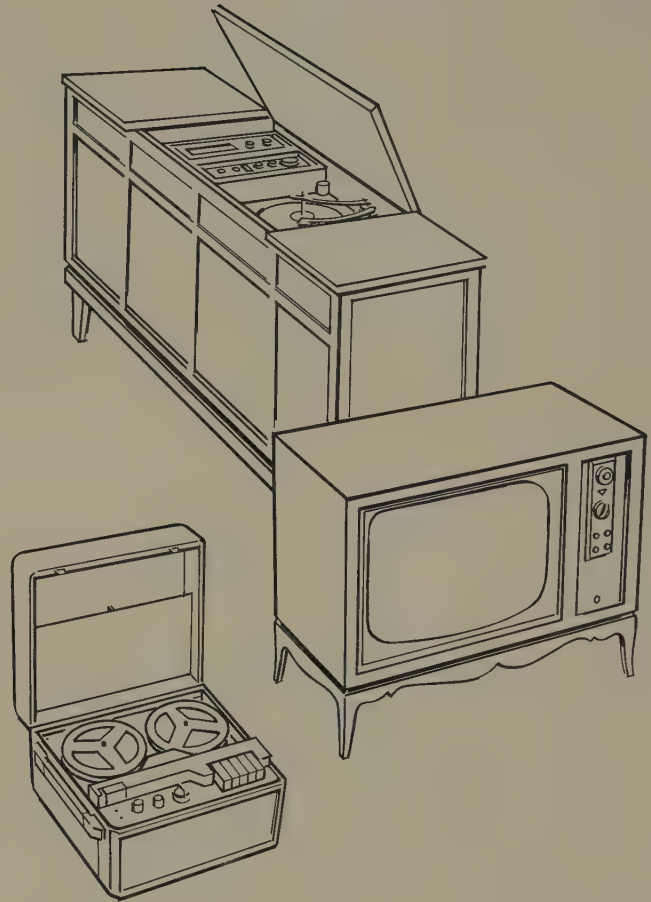
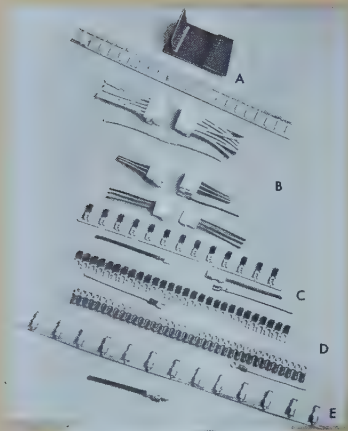
At left—In addition to appearing throughout computers and data processing equipment, AMP products are also used in the testing and check out systems used in their production. For example, this Computer Test Corporation program pulse generator uses AMP-CRIMPAC headers, miniature sockets, AMP-TAB connectors, and "M" connectors.



THE CONSUMER GOODS INDUSTRIES include such fields as home entertainment

equipment, appliances, power tools and vending machines. To provide electrical connections that are reliable, yet low in total installed cost, AMP supplies many different products in continuous strip form on reels for application by a wide range of AMP machines.

Virtually every TV set made in the U. S. contains AMP products. Some of the well-known items used in TV and other home entertainment equipment are AMPMODU interconnection systems (A), MATE-N-LOK and AMP-LOK connectors (B), FASTON tabs and receptacles (C), PIDG terminals (D) and phono plugs (E).



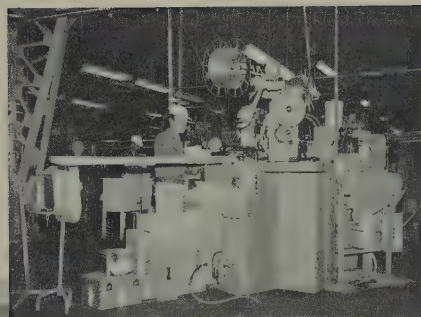
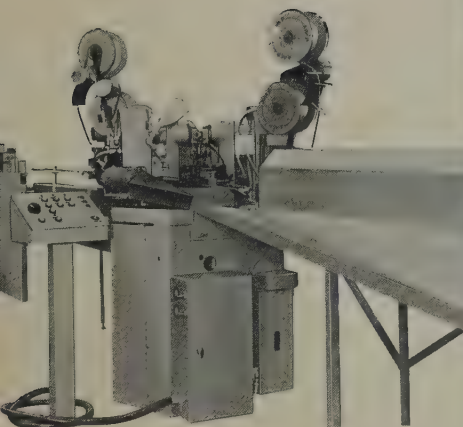


**IN THE TRANSPORTATION
AND ELECTRICAL EQUIP-
MENT FIELDS,** the empha-

sis is on reliable, low-cost connections that can be applied and installed very efficiently. AMP products are used extensively in these industries around the world. In the automotive field, for example, AMP products and application tools and machines are used to produce, equip, and service U. S., European and Japanese automobiles.

Above—(Left to right) MATE-N-LOK multiple connectors, a switch for the brake warning light system, and AMP-FIT crimpable tube fittings on load stabilizer equipment are among the AMP products used on Ford cars.

At left—Nearly a dozen AMPOMATOR machines are applying many millions of AMP terminals monthly at Yazaki Sogyo, K.K. in Japan, who supplies most of the automotive wiring harnesses used in Japanese cars.





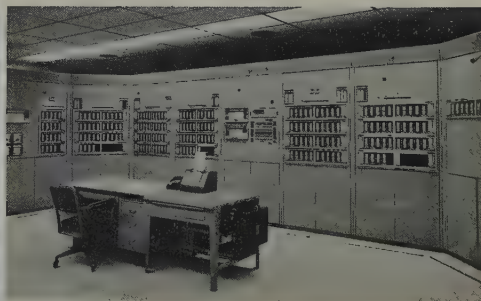
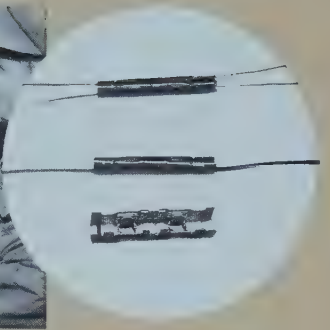
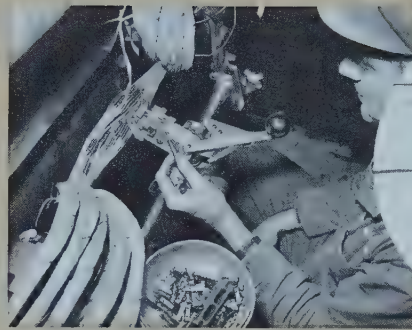
UTILITIES, CONSTRUCTION, MAINTENANCE AND REPAIR—A wide range of

AMP products are used in non-manufacturing field.

Above—AMPACT powder-cartridge actuated tools and wedge-type connectors are now being used by Ontario Hydro, one of the world's largest electric utility companies. With operations that range north to Hudson Bay, these power line connections must perform under extremely severe weather conditions.

Middle—The United Telephone System, the second largest independent system in the U. S., is using AMP's PICABOND pre-insulated splicing connectors to splice telephone cables. The newest type of application tooling is shown in action at United Telephone Co. of Pa.

Below—AMP-FIT crimpable tube fittings were used by the thousands in this large pneumatic process control system installed in a new plant of a major chemical company.



Product Review

As the front cover points out, AMP's product scope has steadily broadened through the years. Today, a wide array of over 25,000 types and sizes of terminals and connectors, application tooling, programming systems, and electronic devices testify to the effectiveness of following basic principles which emphasize highly engineered, patent-protected, high quality products and application tooling that provide applied cost savings to the customer.

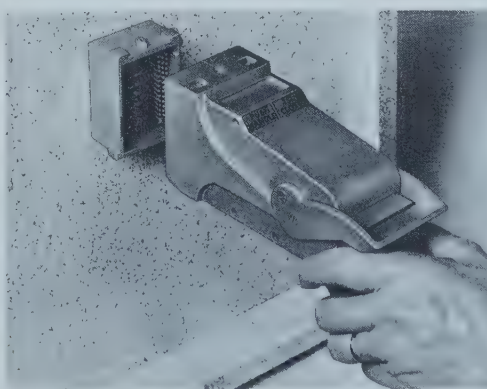
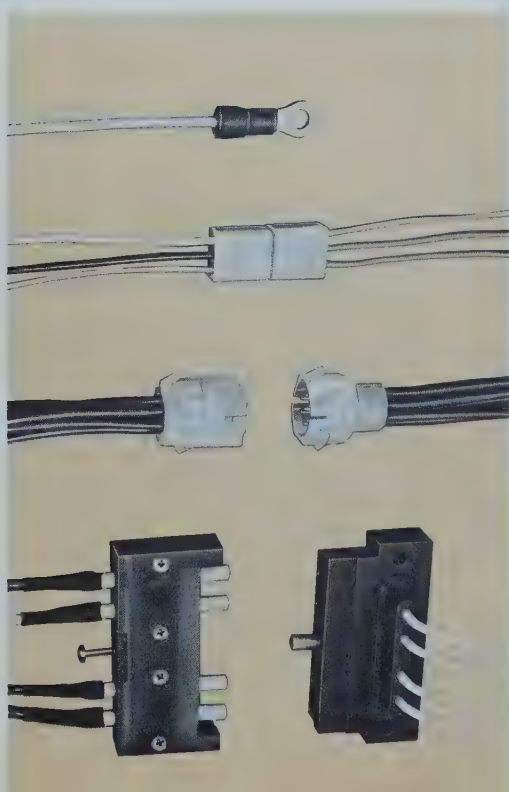
This approach is implemented by spending approximately 12% of our annual sales revenue on the creation and application of new and improved products and processes. Over 1,000 U. S. and 6,000 corresponding foreign patents are now issued or pending here and abroad. The bulk of the new products below continue our work in electrical terminations and connections, but several new categories appear as evidence of an ever-widening product scope.

Terminals, Splices, Connectors—The new terminals and splices released during the year reflect the latest needs of users—gold-plated FASTON terminals for solid-state controls in appliances; STRATO-THERM terminals and splices pre-insulated with TEFLON plastic for aircraft and missiles; gold-plated TERMI-BLOK connectors for ground support equipment; terminals for aluminum wire and improved TERMI-FOIL terminals

for aluminum foil; miniature AMPLIVAR splices for fine wires as small as a human hair and pre-insulated AMPLIVAR splices for coated wires; disconnectable splices for aerospace wiring—these are a few of the many recent additions in this area.

A number of new multiple connectors were introduced. Some were additions to existing families—such as in MATE-N-LOK harness connectors for the automotive and consumer goods markets, CH-AMP subminiature connectors for aerospace and military electronics, and the DUALATCH, M-Series, and G-Series connectors for electronic equipment. The box contact connector line for integrated circuit boards, with several sizes added in its first year, has been specified in the C-5A aircraft and other military programs. Other connectors were the beginning of new product lines—the low-cost COMBO-LINE connector for radio and TV, new types of printed circuit connectors, connectors for relays, corona-resistant connectors for power packages, and connectors for flexible flat cable. A number of other connectors were developed specifically for automotive applications.

AMP now has most of the types, sizes and configurations of coaxial connectors required to meet the present needs of users. All of AMP's coaxial cable products provide quicker and more uniform application results through precision solderless crimping



Above—A series G connector with versatile modular contact housings and quick-latching mechanism.

At left—A few of AMP's new terminal and connector items—a STRATOTHERM terminal pre-insulated with TEFLON plastic, a disconnectable splice for aerospace wiring, a COMBO-LINE cylindrical connector for consumer goods equipment, and a corona-resistant WJH connector for high voltage "power packages".

tools. For the future, a number of new coaxial items are being developed. These include additions to the COAXICLAMP connector line now being used extensively on semi-rigid cable in several major aircraft programs, connectors for new cable requirements in Community Antenna TV, a new UHF series plug for the broadcasting industry, as well as other coaxial connector items to meet the trend toward increased use of coaxial cable in computers and other electronic equipment.

In most of the recent new product programs, the means of application to be furnished to a customer is becoming increasingly important and presents many challenging opportunities for AMP with its long experience in providing effective tooling. Recent new tooling developments include a variety of projects that range from hand and power tools to complex automated application machines.

Electronic Packaging and Interconnection Systems—Integrated circuitry is now being used extensively in most aerospace and military programs and, more recently, in the industrial and consumer electronic fields. To meet these new connection needs AMP has previously released several new products. An integrated circuit “flat pack” can be made into a rugged, pluggable package by simultaneously crimping its 14 leads into place in an AMP-CRIMPAC header with one stroke of a press. To provide pluggability of integrated circuits in flat pack and other popular forms, AMP’s versatile spring-loaded sockets can be used in a variety of ways. Box-type contacts are being used in subminiature multiple connectors for logic board-to-base board connections. These and other AMP product developments are being applied to many

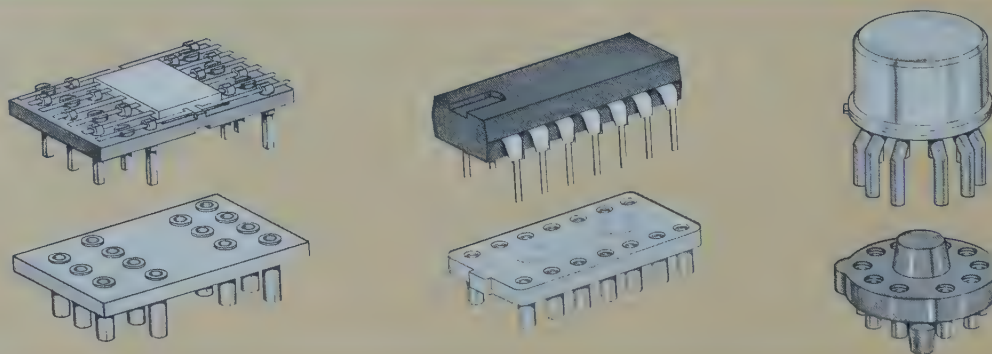
different customer requirements now emerging. Development work also continues in this area to meet the challenge of tomorrow’s “large scale integrated circuitry” units that may have hundreds of connection points.

AMP is also devoting much effort to the area of automated interconnection methods. The versatile AMPMODU contacts offer a variety of modular arrangements as well as an increasing degree of automated installation. These versatile contacts meet the reliability requirements of critical computer and communications circuits and are, therefore, used by companies such as IBM and Collins Radio, yet offer a low enough installed cost to be used in a growing number of consumer electronic products.

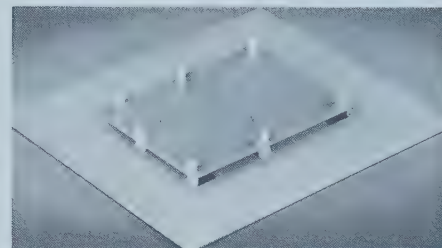
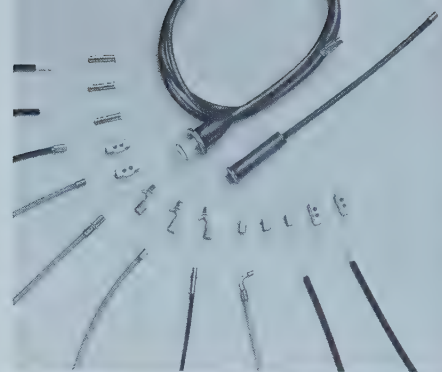
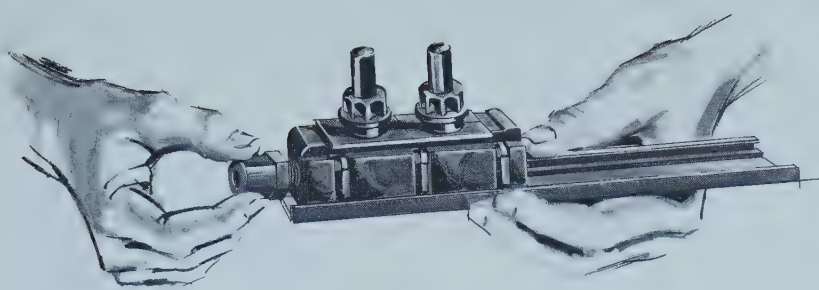
The TERMI-POINT wiring devices program is making steady progress in offering automated point-to-point interconnections for the back panels of computers, data processing and other electronic equipment. Several different families of AMP connectors are now available for use with TERMI-POINT wiring devices. The number of TERMI-POINT numerically-controlled machines placed with customers and on order is steadily rising. The time required for a preprogrammed TERMI-POINT machine to wire a panel has been reduced substantially. Over 1,000 pneumatic TERMI-POINT hand tools are being used by customers, and an electric tool is being released for wiring the smaller size posts.

Connector Products for the Electric Utility Industry—AMP’s entry into this large and growing market was relatively recent. The acceptance of our new line of AMPACT connectors is growing steadily. The unique, lightweight, powder cartridge-actuated

At left—An improved version of the familiar SUPER-CHAMP crimping tool.



Above—AMP’s receptacle headers provide reliable plug-in connections for various types of integrated circuitry—“flat packs” (left—crimped into an AMP-CRIMPAC plug header), “dual-inline” units, and “TO-5 can” units.



Above—AMP-FIT modular, track-mounted manifold for pneumatic systems.

At right—(Top)—Fiber optic assemblies using AMP crimpable fittings and snap-on lenses. **(Below)**—Grounding clip fasteners facilitate attachment and removal of printed circuit boards to a chassis.

tools and wedge-type connectors provide a faster, safer, more reliable method of making “tap” connections on power lines. Some 65 of the major utilities are now in various stages of using or evaluating this method. Through further development work, we feel confident the AMPACT product method can also be extended to “in line splice” and “lug” connections, and to underground connections. In anticipation of a continued trend toward placing cables underground, we are exploring better connection and sealing methods for the various types of cable.

Connectors for the Communications Industry

—In its second year of commercial use, the PICABOND connectors and application tools for splicing telephone cable are gaining extensive use in the telephone field where hundreds of millions of wire connections must be made annually. Of the 35 largest independent U. S. telephone companies, over 30 are in some stage of using or evaluating this new AMP product line. “Second generation” tooling is now being introduced (shown in use on page 12) and additional types of connectors and tools are under development to meet most cable splicing requirements. As the world’s communications systems continue to expand, modernize and innovate at a rapid pace, AMP is intensifying its efforts to apply present AMP products and create new products for their needs—not only in the transmission cable area, but also in the electronic equipment throughout their operations.

Connector Devices for Nonelectrical Uses—AMP was long aware of a large potential in nonelectrical fields for mechanical connector devices based on the same basic concepts we have successfully employed

in the electrical-electronic fields. AMP-FIT crimpable fittings for metal and plastic tubing were AMP’s first major entry into this new area. This faster, more certain method has received good response in its first year from a wide variety of customers for uses in such areas as pneumatic process controls, comfort control systems, and plant maintenance. One of the latest AMP-FIT products is a versatile, modular manifold system that eliminates the need for drilling, tapping and screwing in the various feeder connections.

Transmission of light via glass fiber bundles is not a new concept. However, the recent availability of new plastic fiber optic materials, which are less expensive and more rugged than glass in certain applications, has awakened wide interest in fiber optics in such fields as automotive and electronic equipment. AMP has for several years offered AMPILLUME neon and incandescent panel indicator lights. Now, by working closely with both fiber optic producers and equipment makers, we have developed a number of crimpable receptacles and clips, snap-on lenses, and other devices needed to make practical use of this new lighting approach. AMP offers complete assemblies ready for quick installation into customer equipment whether it be for light transmission to multiple points from one central source, monitoring of a light to indicate whether it is on, or as part of optical scanning equipment in the data processing field.

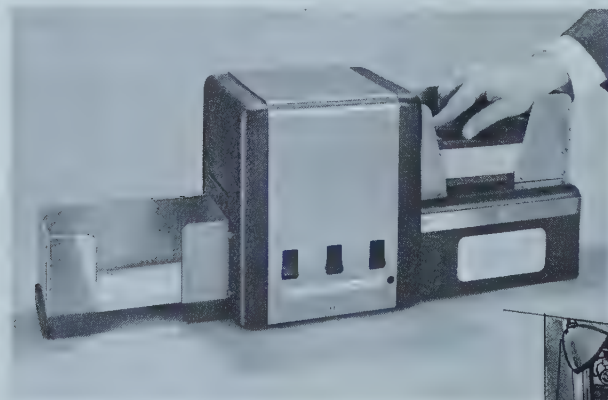
We are broadening our efforts into other connector items such as plastic bag closure devices and printed circuit board grounding fasteners. We believe our biggest contribution in this field can be to provide more effective application methods—particularly a greater degree of automation—than now exist for making mechanical connections.

“Power Packages”—For some time AMP has been a producer of high performance power supplies, pulse system packages, radar pulse modulators, static converters, and other specialized transformer and capacitor products. These products utilize the unique characteristics of AMPLIFILM dielectric insulating material. While many of the recent developments are a continuation of our work in customized military and aerospace “power packages”, increased emphasis is being placed on creating new products for commercial fields. This development emphasis is taking form not only in new types of power units, but also in a broadening line of unique high-voltage, hermetically-sealed connectors for power packages.

Programming Systems—AMP has for years had the most complete line of patchcord programming systems in the industry, and new shielded and coaxial versions continue to keep AMP in the forefront. Now, through a number of recent additions, AMP also has the broadest line of card and badge readers. These devices “read” the information indicated by the pattern of perforations in a tabulating card, credit card or other identification cards and cause it to be transmitted to electronic equipment. They are finding growing use as a vital part of systems for data collection, credit validation, batch selection, process controls, machine controls, testing, dispensing, production control, inventory control, precoded message transmission, and many other purposes. (A few of these uses are illustrated on page 8.) AMP’s role in this fast-growing field is to work closely with the various systems manufacturers to design and supply input units compatible with their newly emerging systems.

TV Audio-Video Switching and Control Equipment—The color TV boom is requiring a large scale conversion to color TV equipment by the broadcasting industry. AMP, utilizing its long experience in programming systems and magnetic logic devices, has developed a modular system which has unique capabilities for controlling and preprogramming TV broadcasting operations. This system of automating broadcast control operations is designed to offer greater reliability and easier maintenance. Modules for each basic function are made compatible with most existing companion equipment and with anticipated future equipment. With this approach, we can “customize” a versatile system for each studio, large or small, and provide flexibility for future changes. The results of the first installations, which have been made in both broadcasting network and large local stations, are encouraging.

The products above, particularly the entirely new product families, are tangible results of AMP’s continuing search for wider product and market scope. Other logical areas of growth are being pursued where AMP can apply its electro-mechanical knowledge and its metalworking, plastic molding, and mechanized assembly know-how to good advantage—such as in the transportation, communications, and medical fields. We feel, therefore, that in the future AMP can continue to make significant product contributions through an evolutionary approach based on the extension of well-developed capabilities.



At left—One of the newer members of the card reader family—an Autofeed unit that automatically processes a stack of tabulating cards and transfers punched card information to electronic systems.

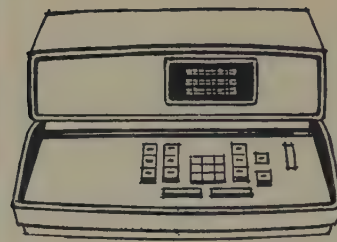


At right—AMP’s audio-video switching and control equipment for TV broadcast control operations.

Ten Year Summary of Financial Data⁽¹⁾*(Dollars in thousands)*

	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957
<i>For The Year—</i>										
NET SALES	\$141,817	\$110,942	\$91,676	\$82,835	\$73,233	\$61,163	\$55,158	\$47,555	\$31,378	\$36,097
COST OF SALES	81,072	62,000	50,322	45,987	39,245	33,130	30,356	25,217	16,743	19,411
GROSS INCOME	60,745	48,942	41,354	36,848	33,988	28,033	24,802	22,338	14,635	16,686
SELLING & GENERAL, ETC.	33,281	26,426	22,586	20,796	18,743	15,773	14,024	12,834	9,832	10,143
INCOME BEFORE INCOME TAXES	27,464	22,516	18,768	16,052	15,245	12,260	10,778	9,504	4,803	6,543
INCOME TAXES	12,439	10,068	9,045	7,510	7,471	5,605	4,965	4,508	2,206	3,192
NET INCOME	\$ 15,025	\$ 12,448	\$ 9,723	\$ 8,542	\$ 7,774	\$ 6,655	\$ 5,813	\$ 4,996	\$ 2,597	\$ 3,351
<i>Per Share⁽²⁾</i>	\$ 2.47	\$ 2.05	\$ 1.60	\$ 1.41	\$ 1.28	\$ 1.10	96¢	83¢	43¢	55¢
CASH DIVIDENDS	\$ 3,652	\$ 3,037	\$ 2,729	\$ 2,423	\$ 2,119	\$ 1,816	\$ 1,614	\$ 1,210	\$ 1,009	\$ 970
<i>Per Share⁽²⁾</i>	60¢	50¢	45¢	40¢	35¢	30¢	27¢	20¢	17¢	16¢
CAPITAL EXPENDITURES	\$ 17,136	\$ 11,817	\$ 6,195	\$ 7,891	\$ 5,141	\$ 3,507	\$ 4,524	\$ 3,099	\$ 2,060	\$ 2,489
DEPRECIATION	\$ 5,609	\$ 4,178	\$ 3,615	\$ 3,070	\$ 2,696	\$ 2,201	\$ 1,779	\$ 1,472	\$ 1,045	\$ 831
<i>At December 31—</i>										
WORKING CAPITAL	\$ 35,257	\$ 28,645	\$ 26,513	\$ 21,645	\$ 19,398	\$ 16,019	\$ 12,349	\$ 10,773	\$ 7,767	\$ 7,069
PROPERTY, PLANT AND EQUIPMENT, NET	\$ 38,713	\$ 27,543	\$ 20,125	\$ 17,839	\$ 13,165	\$ 10,927	\$ 9,757	\$ 7,152	\$ 5,128	\$ 4,365
LONG-TERM DEBT	\$ 6,200	\$ 400	\$ 500	\$ 600	\$ 700	\$ 800	\$ 900	\$ 1,000	\$ 1,100	\$ 1,100
SHAREHOLDERS' EQUITY	\$ 64,283	\$ 53,026	\$ 43,671	\$ 36,660	\$ 30,501	\$ 24,921	\$ 20,080	\$ 15,881	\$ 12,430	\$ 10,841

⁽¹⁾ The years 1959 through 1966 include all subsidiaries. Prior to 1959, only the domestic subsidiaries are included.⁽²⁾ Based on shares outstanding at the respective year-ends after retroactively giving effect to the 3 for 1 stock split in 1961, and the 4% stock dividend in 1957.



Combined

AMP INCORPORATED &

ASSETS	As of December 31	
	1966	1965
CURRENT ASSETS:		
Cash.....	\$ 2,424,681	\$ 1,869,124
Marketable securities, at cost.....	330,000	349,844
Receivables.....	21,992,006	16,098,300
Inventories, at lower of cost, principally average, or market—		
Finished goods and work in process.....	\$ 14,883,902	\$11,171,689
Purchased and manufactured parts.....	15,402,128	10,217,462
Raw material.....	8,207,605	6,033,664
Total inventories.....	\$ 38,493,635	\$27,422,815
Prepaid expenses, etc.....	1,688,668	1,097,175
Total current assets.....	\$ 64,928,990	\$46,837,258
PROPERTY, PLANT AND EQUIPMENT, At cost:		
Land.....	\$ 2,866,418	\$ 1,889,077
Buildings, leasehold improvements and rights.....	16,010,435	11,978,798
Machinery and equipment, etc.....	29,917,556	22,772,667
Machines and tools with customers.....	12,803,383	9,206,408
	\$ 61,597,792	\$45,846,950
Less—Reserves for depreciation.....	22,885,051	18,304,273
Property, plant and equipment, net.....	\$ 38,712,741	\$27,542,677
PATENTS.....		
	\$ 1	\$ 1
	<u>\$103,641,732</u>	<u>\$74,379,936</u>

The accompanying notes to the combined financial

Balance Sheets

Subsidiaries and Pamcor, Inc.

	As of December 31	
	1966	1965
CURRENT LIABILITIES:		
Bank loans, etc.	\$ 4,700,000	\$ 100,000
Foreign bank obligations	3,772,011	2,880,181
Accounts payable	7,268,497	5,660,218
Accrued liabilities	5,090,992	3,947,190
Income taxes (less marketable securities of \$1,800,000 in 1965) ..	8,840,546	5,604,277
Total current liabilities	\$ 29,672,046	\$18,191,866
LONG TERM DEBT (Note 3)		
DEFERRED INCOME TAXES	\$ 6,200,000	\$ 400,000
INVESTMENT TAX CREDIT AND DEFERRED INCOME	1,647,208	1,326,000
RESERVE FOR CONTINGENCIES APPLICABLE TO FOREIGN OPERATIONS ..	1,285,937	883,083
	553,404	553,404
SHAREHOLDERS' EQUITY:		
AMP Incorporated—		
Common stock, without par value (Note 4)—		
Authorized 15,000,000 shares, issued 6,240,000 shares	\$ 6,240,000	\$ 6,240,000
Pamcor, Inc. (Note 5)—		
Common stock, par value \$1.00 per share—		
Authorized 50,000 shares, issued 20,000 shares	20,000	20,000
Retained earnings	58,354,478	46,980,537
	\$ 64,614,478	\$53,240,537
Less—Treasury stock (153,844 and 165,298		
Endorsed Shares), at cost (Note 5)	331,341	214,954
Total shareholders' equity	\$ 64,283,137	\$53,025,583
	<u>\$103,641,732</u>	<u>\$74,379,936</u>

These statements are an integral part of these statements.

**COMBINED STATEMENTS OF INCOME
AND RETAINED EARNINGS**

AMP INCORPORATED & Subsidiaries and Pamcor, Inc.

For the Years Ended December 31

	1966	1965
NET SALES	\$141,816,891	\$110,942,291
COST OF SALES	81,072,103	62,000,695
Gross income	\$ 60,744,788	\$ 48,941,596
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES	32,855,750	26,511,970
Income from operations (after deducting depreciation of \$5,608,960 in 1966 and \$4,177,602 in 1965)	\$ 27,889,038	\$ 22,429,626
OTHER DEDUCTIONS (Income), Net	424,467	(86,222)
Income before income taxes	\$ 27,464,571	\$ 22,515,848
INCOME TAXES (including deferred income taxes of \$124,000 in 1966 and \$478,000 in 1965)	12,439,000	10,068,000
NET INCOME	\$ 15,025,571	\$ 12,447,848
<i>Per Endorsed Share</i>	\$2.47	\$2.05
RETAINED EARNINGS, BEGINNING OF YEAR	46,980,537	37,569,727
	\$ 62,006,108	\$ 50,017,575
LESS—CASH DIVIDENDS ON COMMON STOCK BY:		
AMP Incorporated.....	\$ 2,434,420	\$ 1,822,223
Pamcor, Inc.....	1,217,210	1,214,815
Total Dividends (60¢ and 50¢ per Endorsed Share)	\$ 3,651,630	\$ 3,037,038
RETAINED EARNINGS, END OF YEAR	\$ 58,354,478	\$ 46,980,537

Net income reflects net income of Pamcor, Inc. of \$1,623,692 in 1966 and \$1,479,885 in 1965, after elimination of affiliated company profit in inventory.

The accompanying notes to the combined financial statements are an integral part of these statements.

AMP INCORPORATED & Subsidiaries and Pamcor, Inc.

- (1) The financial statements of Pamcor have been combined with those of AMP and its subsidiaries (all wholly owned), since each company is owned beneficially by substantially identical shareholders. Pamcor has no subsidiaries and no affiliates other than AMP and its subsidiaries. By trust agreement, Bankers Trust Company holds Pamcor common stock for the benefit of those AMP common shareholders whose certificates are endorsed to show they are entitled to a proportionate interest in the Pamcor common stock held in the Trust. This interest is not transferable separately.

At December 31, 1966, 15,875 Pamcor common shares were held in trust for holders of 4,953,000 AMP endorsed common shares (including 153,844 in AMP Treasury). The undeposited 4,125 Pamcor common shares are expected to be ultimately deposited in trust; and, as they are deposited, Bankers Trust Company will exchange Endorsed Shares of AMP common stock for the 1,287,000 unendorsed shares.

Unless certain provisions of the Pamcor Certificate of Incorporation are complied with, undeposited Pamcor common shares, upon transfer, are converted into Class B common stock, having no voting rights or dividend privileges, and having restricted rights upon liquidation. The total authorized common stock of Pamcor (including Class B, none of which was outstanding at December 31, 1966) is 50,000 shares.

- (2) As a result of including the accounts of all foreign operations, the combined financial statements as of December 31, 1966, include assets amounting to \$28,553,739, and liabilities amounting to \$13,373,333 or net assets of \$15,180,406. The additional net income, as a result of including these foreign operations, amounted to \$4,052,793 for the year 1966 and \$3,098,836 for the year 1965.

Intercompany and affiliated company accounts and transactions, including unrealized profits in inventory, were eliminated in consolidating and combining the financial statements of AMP, its subsidiaries and Pamcor.

The accounts of the foreign operations have been converted to United States dollars at the official rates of exchange and there are no significant unrealized gains and losses thereon. The availability of remittances to the parent company is subject to the currency restrictions of the various countries. No provision has been made in consolidation for U. S. income taxes payable when dividends are received from foreign subsidiaries since AMP would receive a foreign tax credit which would substantially eliminate all U. S. income taxes on such dividends. The reserve (\$553,404) for contingencies applicable to foreign operations is considered adequate to

cover unusual and extraordinary losses, if any, that may be incurred by the foreign subsidiaries.

- (3) Long-term debt at December 31, 1966, represents a 4½% note of \$200,000 due in 1968 and a 5½% note of \$6,000,000 payable to a bank under a revolving credit agreement which permits AMP to borrow up to \$6,000,000 at prime rate. The agreement expires March 15, 1969, unless AMP, at its option, elects to fund such borrowings at ¼% above the prime rate into a term loan payable thereafter in equal semi-annual installments to March 15, 1971. The interest rate in either case will not exceed 5½% nor be less than 4½%. The agreement states that without the prior consent of the lender AMP and its domestic subsidiaries will not incur other future indebtedness in excess of \$25,000,000.

In addition to the above, AMP has agreed to borrow \$10,000,000 from an institutional lender at 6½% interest, repayable in equal annual installments over 10 years or, at the option of AMP, over 5 years without penalty. The agreement contains restrictions with respect to additional borrowings and maintenance of minimum working capital and certain other items. Payment of cash dividends and the purchase of the Company's common stock, etc., are restricted to \$10,000,000 plus the net income of AMP and its domestic subsidiaries for 1966 and subsequent years.

- (4) On January 25, 1967, the Board of Directors of AMP Incorporated recommended that each share of common stock presently issued be changed into two shares of common stock and that the common stock account be increased by \$6,240,000 by transfer from Retained Earnings. This proposal will be submitted to the stockholders for action at the annual meeting to be held April 27, 1967.

- (5) All of the Endorsed Shares held in the treasury are reserved for the payment of stock bonuses under the incentive Stock Plus Cash Bonus Plan adopted by the Board of Directors. The number of shares to be distributed is determined by the appreciation in the market value of the Company's stock. During the year ended December 31, 1966, 16,454 shares were distributed under the provisions of the Plan. For awards granted before and outstanding on December 31, 1966, and based on the market value as of that date, 110,040 shares would be distributed in the years 1967 to 1976 and thereafter.

AMP Incorporated also holds in its treasury at a cost of \$30,000 all of the 3,000 issued shares of Pamcor's preferred stock (authorized 4,000 shares, 50¢ cumulative, voting, par value \$10.00 per share).

AUDITORS' REPORT

To the Shareholders and Boards of Directors,
AMP Incorporated and Pamcor, Inc.:

We have examined the combined balance sheet of AMP INCORPORATED (a New Jersey corporation) and subsidiaries and PAMCOR, INC. (an affiliated Puerto Rican corporation) as of December 31, 1966 and the related combined statements of income and retained earnings for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. Financial statements of the foreign subsidiaries were not examined by us, but we were furnished with reports thereon of other auditors. We have previously examined and reported on the financial statements for the preceding year.

In our opinion, based upon our examination and upon the reports of other auditors, the accompanying combined balance sheet and combined statements of income and retained earnings present fairly the combined financial position of AMP Incorporated and subsidiaries and Pamcor, Inc. as of December 31, 1966, and the results of their combined operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Philadelphia, Pennsylvania
February 17, 1967

Arthur Andersen & Co.



One of AMP's early black and white trade advertisements is compared with some of the recent full color corporate ads appearing in general business publications, as well as trade magazines. The contrast visibly indicates progress in advertising. But even further, it symbolizes the expansion of an initial basic marketing concept into a comprehensive worldwide marketing program that is serving increasingly diversified customers with more complex products.



AMP INCORPORATED

HARRISBURG, PA.

Pamcor, Inc.

SAN JUAN, P.R.

THE ANNUAL SHAREHOLDERS' MEETINGS

The annual shareholders' meetings of AMP Incorporated and Pamcor, Inc. are held the fourth Thursday of April. Formal notices, proxy statements and forms of proxy will be mailed on or about March 23, 1967, to shareholders of record on March 10, 1967 as to the April 27, 1967 meetings at 2:00 P.M. and 3:00 P.M. respectively at 15 Exchange Place, Jersey City, New Jersey.

TRANSFER AGENTS

Bankers Trust Company
16 Wall Street
New York, N.Y. 10015

The Corporation Trust Company
15 Exchange Place
Jersey City, N.J. 07102

REGISTRAR

Morgan Guaranty Trust Company
of New York
30 West Broadway
New York, N.Y. 10015

LISTED

New York Stock Exchange

BOARD OF DIRECTORS

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President and chief executive officer

R. M. BRUMFIELD
Chairman of the Board
and chief executive officer
Potter & Brumfield Division,
American Machine & Foundry
Company

*C. J. FREDRICKSEN
Vice President-Treasurer

F. C. HIXON
President
Midland Investment Company

*G. A. INGALLS
Vice Chairman of the Board

C. L. KEISTER
Chairman of the Board
Dauphin Deposit Trust Company

J. B. SOLLENBERGER
Retired President
Hershey Estates

*U. A. WHITAKER
Chairman of the Board

* Member of Executive Committee of
the AMP Incorporated Board of
Directors

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Chairman of the Board

G. A. INGALLS
Vice Chairman of the Board

S. S. AUCHINCLOSS
President and chief executive officer

C. J. FREDRICKSEN
Vice President-Treasurer

WILLIAM C. LANGE
Vice President
Director of Merchandising

S. WILSON POLLOCK
Vice President
Engineering and Research

SOLON L. RHODE, JR.
Secretary
General Legal Counsel

F. S. KUGLE
Controller

†JOSEPH D. BRENNER
Vice President
Manufacturing Division

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Domestic Subsidiaries Division

†MARSHALL M. HOLCOMBE
Vice President
General Patent Counsel

†FRANKLIN E. HOWELL
Vice President
Industrial Sales Division

† Officer of AMP Incorporated only.



terminals • connectors • splices •
electrical / electronic components •
interconnection products • manual
and power tools • programming
systems and devices • automatic
machines • mechanical products

AMP Incorporated

Eisenhower Boulevard • Harrisburg, Pennsylvania 17105

Pamcor, Inc.

SUBSIDIARIES

(all wholly-owned and included in combined results)

American Pamcor, Inc.
Valley Forge, Pa.

Aircraft-Marine Products of Canada, Ltd.
Toronto, Canada

AMP de Mexico, S.A.
Mexico City, D.F. Mexico

AMP de France
Paris, France

AMP Italia S.p.A.
Turin, Italy

AMP-Holland N.V.
's-Hertogenbosch, Holland

Deutsche AMP G.m.b.H.
Frankfurt, Germany

Aircraft-Marine Products (Great Britain) Ltd.
London, England

AMP Española, S.A.
Barcelona, Spain

AMP (Japan), Ltd.
Tokyo, Japan

Aircraft-Marine Products (Australia) Pty. Ltd.
Sydney, Australia

1941-1966

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